



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,040	02/21/2007	Wolfgang Radkowsch	RADKOWITSCH ET AL-1 PCT	3662
25889	7590	04/01/2010	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			HOWELL, DANIEL W	
			ART UNIT	PAPER NUMBER
			3726	
			MAIL DATE	DELIVERY MODE
			04/01/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,040	Applicant(s) RADKOWITSCH ET AL.	
	Examiner Daniel W. Howell	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 98-190 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 163-190 is/are allowed.
- 6) ☒ Claim(s) 98-111, 114, 115 and 125-162 is/are rejected.
- 7) ☒ Claim(s) 112, 113 and 116-124 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5-15-07, 4-23-07</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 3726

1. On line 3 of claim 149, "ration" should be changed to "ratio."
2. Claims 125-162 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 125 and 149 are not in proper independent or dependent form. Claim 125 appears to attempt to begin as an independent claim, but the last two lines set forth "a drill according to claim 98." Similarly, claim 149 appears to start as an independent claim, but the last two lines set forth "a drill according to claim 121." For each of claims 125 and 149, those phrases on the last two lines must be deleted and replaced with the subject matter of claims 98 and 121, respectively. [In the action below, the examiner has treated claims 125 and 149 as if they do include the subject matter of claims 98 and 121. Should these two claims be amended in some other manner not including all of the subject matter of claims 98 and 121, then any new rejection made to claims 125 and 149 will be subject to being considered as necessitated by amendment, and the next action will likely be made final.] Line 2 of claims 136, 145, 150, and 159 each set forth "the latter." This term should be replaced with the appropriate item.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 98-111 and 114-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soviet 1685628. Figures 1-3 show a gun drill having the V-shaped flute, a fluid supply 11, 13, and a rear offset 6 where opening 13 exits. As seen best in figure 2, the offset 6 is flat. If one were to draw a first line bisecting the flute and a second line normal to the surface 6, then

Art Unit: 3726

the angle formed by their intersection will be pretty small. It is noted that unless drawings are disclosed as being drawn to scale, then it is improper to treat them as if they are drawn to scale. Regarding claims 98 and 101, it is considered to have been obvious to have conducted suitable experimentation to provide this angle of intersection with a desired value of -50 to + 50 degrees, or -30 to + 30 degrees, in order to adequately balance the forces on the drill to make a hole of desired dimensions. Regarding claims 99 and 100, it is noted that figure 1 shows a length to diameter ratio of the head to be between 2 and 3, but, again, the drawings are not disclosed as being to scale. It is noted that the range of claim 99 is quite large, and this range of .5 to 10 is met by an extremely large percentage of the gundrill market, as is the ratio of claim 100. It is considered to have been obvious to have provided an appropriate ratio that will drill a hole of desired quality and surface finish. Regarding claim 102, the ratio of claim 102 covers nearly every possibility, as a value greater than 0.8 would likely cause the tool to break as there wouldn't be much material left to even make the tool head, and a value less than 0.1 would mean that the offset barely even exists. The ratio from figure 2 of Soviet '628 is about 0.4, but the drawings are not to scale. It is considered to have been obvious to have provided a ratio within the range of claim 102, as this range is so broad as to not even exclude any possible value that wouldn't cause tool fracture. Figure 3 shows the two cutting edges of claims 106-109, and it is considered to have been obvious to have provided angles appropriate for the material being drilled and the size of the hole being made. Regarding claim 110-111, while the value illustrated in figure 3 appears to be about 1/8, the drawing is not to scale. It is considered to have obvious to have provided a ratio appropriate for the material being drilled and the size of the hole being made. The ranges covered in claims 114-115 cover quite ordinary hole diameter sizes for

Art Unit: 3726

manufacturing situations, and it is considered to have been obvious to have provided tools having these normal diameter values.

5. Claims 125 and 130-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soviet '628 in view of Scheider et al (4957398). It is considered to have been obvious to have provided the Soviet tool with a depth/diameter ratio of greater than 100 if that is required by the particular workpiece. Scheider shows a conventional drive spindle having a fluid inlet 78 from a pump and a rotary transfer device 72, 74, 76, to transfer the fluid to a drive spindle. It is considered to have been obvious to have provided the Soviet device with a fluid supply arrangement as shown by Scheider et al, as this is a notoriously conventional arrangement to supply fluid to a rotary cutting too. Regarding claims 130-135, it is considered to have been obvious to have provided fluid supply at whatever pressure is required by the situation.

6. Claims 163-190 are allowed.

7. Claims 112-113 and 116-124 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning the content of this communication from the examiner should be directed to Daniel Howell, whose telephone number is 571-272-4478. The examiner's office hours are typically about 10 am until 6:30 pm, Monday through Friday. The examiner's supervisor, David Bryant, may be reached at 571-272-4526.

In order to reduce pendency and avoid potential delays, Group 3720 is encouraging FAXing of responses to Office actions directly into the Group at FAX number to 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Daniel Howell of Art Unit 3726 at the top of your cover sheet.

/Daniel W. Howell/

Primary Examiner, Art Unit 3726